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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/629,207	07/29/2003	Johathan Lee	13935US02	5674
23446 7590 12/28/2007 MCANDREWS HELD & MALLOY, LTD 500 WEST MADISON STREET SUITE 3400 CHICAGO, IL 60661			EXAMINER RAHMAN, FAHMIDA	
			ART UNIT 2116	PAPER NUMBER
			MAIL DATE 12/28/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/629,207	LEE ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Fahmida Rahman	2116	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 31 October 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 27-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 27-31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

### **DETAILED ACTION**

1. This action is in response to communications filed on 10/31/2007.
  2. Claims 1-26 have been cancelled and no claims have been added or amended.
- Thus, claims 27-31 have been pending.

### **Claim Objections**

The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not).

Claims 27 and 28 labeled with status identifier "new". However, these claim numbers were originally presented in 7/29/03. The response filed on 4/28/2006 showed claim 27 as "amended" and claim 28 as "original". Response filed on 1/11/2007 did not show claims 27 and 28. Therefore, Examiner assumed that these claims were cancelled. However, response filed on 7/5/2007 shows the status identifiers as "new" for claims 27 and 28.

It is assumed that claims 27 and 28 are canceled by the applicant and the misnumbered claims 27-31 filed on 7/5/2007 and 10/31/2007 should be renumbered with claims 29-33. Appropriate correction is required.

### **Claim Rejections - 35 USC § 103**

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 27-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shoobridge (US Patent 6633769), in view of Mills (US Patent 6795450).

For claim 27, Shoobridge teaches the following limitations:

**A method for optimizing power consumption in a communication system (abstract) comprising: detecting an amount of traffic** (lines 33-47 of column 5 mention that if communication is absent for a predetermined time. Thus, amount of traffic, which may be zero or non-zero, is detected), **a link** ([0008] mentions that communications between two devices is established through connection, or link. Thus, link is detected first before any communication), **battery usage** (lines 32-47 of column 5) **and a power state of the communication system** ("normal mode" and "enhanced mode" as mentioned in lines 65-67 of column 2); **and selecting at least one power management from a plurality of power management states state** (sleep/suspend 440, hot/wake-up 460 mentioned in lines 24-40 of column 8; wake-up can further be classified as: wake-up with deinsertion/insertion event, wake-up without deinsertion/insertion event, communication session between two devices is another power management state) **based at least in part on said detection of the amount of**

**traffic** ("sleep mode" is selected when traffic is zero as mentioned in lines 40-47 of column 5), **the detection of the battery usage** ("sleep" when battery module fail as mentioned in [0028]) **and the detection of the power state** (the "hot mode" or wake-up of normal mode is different from that of enhanced mode. [0035] mentions that enhanced mode does not create some de-insertion/insertion events on a resume of a device, which is performed in normal mode. Therefore, the type of wake-up depends on whether the device is in normal mode or enhanced mode)

Shoobridge does not explicitly mention about absence of AC power. The hand held portable device is powered by battery (lines 33-47 of column 5). However, there is no mention about the absence of AC power in mobile although it is mentioned that the mobile device can roam from cell to cell (lines 54-65 of column 1).

Examiner takes an official notice that mobile device roaming from cell to cell is typically driven by battery with an absence of AC power.

It would have been obvious for one ordinary skill in the art at the time the invention was made to use the mobile without AC power, since powering a portable device by battery with absence of AC power provides ease of use and simplicity in design. In such a case, detection of battery usage is same as the detection of battery usage with an absence of power.

Shoobridge does not explicitly mention that selection of power management state can be based on detection of link. Mills teaches a system where a power management state is selected based on the detection of link (Figure 3 shows that 300 is selected if link is not detected and lines 30-35 of column 8 mention that partner will reset if link is not detected).

It would have been obvious for one ordinary skill in the art at the time the invention was made to combine the teachings of Shoobridge and Mills. One ordinary skill would be motivated to have a power management state based on detection of link, since absence of link may require special power management scheme, such as reset.

For claim 28, low power mode in Shoobridge is selected when there is no traffic.

For claims 29, 30, 31, Mills teaches detecting intensity, or amount of traffic (lines 60-67 of column 9). The network can detect full high-bandwidth communication and limited communication. There is a threshold for comparison to figure out what amount of communication is high-bandwidth communication. The amount of traffic is approximated to at least full bandwidth communication and limited communication. For limited communication, power is scaled down.

### **Response to Arguments**

Applicant's arguments filed on 10/31/2007 have been considered but they are not persuasive.

Applicant argues that Shoobridge does not teach selecting at least one power management state based at least in part on the detection of battery usage with an absence of AC power.

Applicant agrees that portable device is typically driven with battery with an absence of AC power. If that is true, "detection of battery usage" in Shoobridge is "detection of battery usage with an absence of AC power" as we agreed on that battery driven mobile without AC power is well known in the art. Any detection of battery usage on a battery driven mobile with AC power is basically detection of battery usage with an absence of AC power. As the selection is based on detection and detection is performed with an absence of AC power, the limitation "selecting at least one power management state from a plurality of power management states based at least in part on the detection of battery usage with an absence of AC power" is within the scope of Shoobridge.

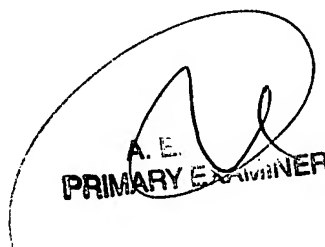
### **Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fahmida Rahman whose telephone number is 571-272-8159. The examiner can normally be reached on Monday through Friday 8:30 - 5:30. If

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attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rehana Perveen can be reached on 571-272-3676. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Fahmida Rahman  
Examiner  
Art Unit 2116



A.E.  
PRIMARY EXAMINER